

Johannisen



ENTERED

1600

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/636,259C

DATE: 03/07/2003 P.6  
TIME: 08:08:38

Input Set : A:\10738-44.ST25.txt

Output Set: N:\CRF4\03072003\I636259C.raw

3 <110> APPLICANT: Small, Kersten  
 4       Liggett, Stephen  
 6 <120> TITLE OF INVENTION: Alpha-2A-Adrenergic Receptor Polymorphisms  
 8 <130> FILE REFERENCE: 10738-44  
 10 <140> CURRENT APPLICATION NUMBER: 09/636,259C  
 11 <141> CURRENT FILING DATE: 2000-08-10  
 13 <160> NUMBER OF SEQ ID NOS: 26  
 15 <170> SOFTWARE: PatentIn version 3.1  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 1350  
 19 <212> TYPE: DNA  
 20 <213> ORGANISM: Homo sapiens  
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 25 ggcggcgccc gggccacccc ttactccctg caggtgacgc tgacgctggt gtgcctggcc       120  
 27 ggctgtctca tgcgtgtcac cgtgttcggc aacgtgctcg tcatcatcgc cgtgttcacg       180  
 29 agccgcgcgc tcaaggcgcc ccaaaacctc ttcctggtgt ctctggcctc ggccgacatc       240  
 31 ctggtggcca cgctcgtcat ccctttctcg ctggccaacg aggtcatggg ctactggtac       300  
 33 ttcggcaagg cttggtgcga gatctacctg gcgctcgacg tgctcttctg cacgtcgtcc       360  
 35 atcgtgcacc tgtgcgccat cagcctggac cgctactggt ccatcacaca ggccatcgag       420  
 37 tacaacctga agcgcacgcc gcgccgcac aaggccatca tcatcaccgt gtgggtcatc       480  
 39 tcggccgtca tctccttccc gccgctcatc tccatcgaga agaaggcgcg cggcggcggc       540  
 41 ccgcagccgg ccgagccgcg ctgcgagatc aacgaccaga agtgggtacgt catctcgtcg       600  
 43 tgcacggctt ccttcttcgc tccctgcctc atcatgatcc tgggtctacgt gcgcatctac       660  
 45 cagatcgcca agcgtcgcac ccgcgtgcca cccagccgcc ggggtccgga cgccgtcgcc       720  
 47 gcgccgccgg ggggcaccga gcgcaggccc aacggtctgg gccccgagcg cagcgcgggc       780  
 49 ccggggggcg cagaggccga accgctgccc acccagctca acggcgcccc tggcgagccc       840  
 51 gcgccggccg ggccgcgcga caccgacgcg ctggacctgg aggagagctc gtcttccgac       900  
 53 cagcccgagc ggcctccagg gccccgcaga cccgagcgcg gtccccgggg caaaggcaag       960  
 55 gcccgagcga gccaggtgaa gccgggagac agcctgccgc ggcgcggggc gggggcgacg       1020  
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82 agccgcgcgc tcaaggcgcc ccaaaacctc ttctgtgtgt ctctggcctc ggccgacatc 240
84 ctggtggcca cgctcgatcat ccctttctcg ctggccaacg aggtcatggg ctactggtac 300
86 ttcggcaagg cttggtgcga gatctacctg gcgctcgacg tgctcttctg cacgtcgtcc 360
88 atcgtgcacc tgtgcgccat cagcctggac cgctactggt ccatcacaca ggccatcgag 420
90 tacaacctga agcgacgcgc gcgcgcgcgc aaggccatca tcatcacctg gtgggtcatc 480
92 tcggccgtca tctccttccc gccgctcatc tccatcgaga agaaggggcg cgccggcggc 540
94 ccgcagccgg ccgagccggc ctgcgagatc aacgaccaga agtggtacgt catctcgtcg 600
96 tgcacgggct ccttcttcgc tccctgcctc atcatgatcc tgggtctacgt gcgcacatctac 660
98 cagatcgcca agcgtcgcac ccgcgtgcca cccagccgcc ggggtccgga cgccgtcgcc 720
100 gcgcgcgcgc ggggcaccga gcgcaggccc aagggtctgg gcccgcgagc cagcgcgggc 780
102 ccggggggcg cagaggccga accgctgccc acccagctca acggcgcccc tggcgagccc 840
104 gcgcgcgcgc ggccgcgcga caccgacgcg ctggacctgg aggagagctc gtcttccgac 900
106 cagcgcgagc ggctccagg gccccgcaga cccgagcgcg gtccccgggg caaaggcaag 960
108 gccgcgagca gccaggtgaa gccgggcgac agcctgccgc ggcgcgggcc gggggcgacg 1020
110 gggatcgga cgccggctgc agggccgggg gaggagcgcg tcggggctgc caaggcgctc 1080
112 cgctggcgcg ggccgcagaa ccgcgagaag cgcttcacgt tcgtgctggc cgtggtcac 1140
114 ggagtgttcg tgggtgtgctg gttccccctt ttcttcacct acacgctcac ggccgctcgg 1200
116 tgctccgtgc cagcgacgct cttcaaattc ttcttctggt tcggctactg caacagctcg 1260
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124 <211> LENGTH: 450
125 <212> TYPE: PRT
126 <213> ORGANISM: Homo sapiens
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131 1 5 10 15
134 Glu Ala Pro Gly Gly Gly Ala Arg Ala Thr Pro Tyr Ser Leu Gln Val
135 20 25 30
138 Thr Leu Thr Leu Val Cys Leu Ala Gly Leu Leu Met Leu Leu Thr Val
139 35 40 45
142 Phe Gly Asn Val Leu Val Ile Ile Ala Val Phe Thr Ser Arg Ala Leu
143 50 55 60
146 Lys Ala Pro Gln Asn Leu Phe Leu Val Ser Leu Ala Ser Ala Asp Ile
147 65 70 75 80
150 Leu Val Ala Thr Leu Val Ile Pro Phe Ser Leu Ala Asn Glu Val Met
151 85 90 95
154 Gly Tyr Trp Tyr Phe Gly Lys Ala Trp Cys Glu Ile Tyr Leu Ala Leu
155 100 105 110
158 Asp Val Leu Phe Cys Thr Ser Ser Ile Val His Leu Cys Ala Ile Ser
159 115 120 125
162 Leu Asp Arg Tyr Trp Ser Ile Thr Gln Ala Ile Glu Tyr Asn Leu Lys
163 130 135 140
166 Arg Thr Pro Arg Arg Ile Lys Ala Ile Ile Ile Thr Val Trp Val Ile
167 145 150 155 160
170 Ser Ala Val Ile Ser Phe Pro Pro Leu Ile Ser Ile Glu Lys Lys Gly
171 165 170 175
174 Gly Gly Gly Gly Pro Gln Pro Ala Glu Pro Arg Cys Glu Ile Asn Asp

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175          180          185          190
178 Gln Lys Trp Tyr Val Ile Ser Ser Cys Ile Gly Ser Phe Phe Ala Pro
179          195          200          205
182 Cys Leu Ile Met Ile Leu Val Tyr Val Arg Ile Tyr Gln Ile Ala Lys
183          210          215          220
186 Arg Arg Thr Arg Val Pro Pro Ser Arg Arg Gly Pro Asp Ala Val Ala
187 225          230          235          240
190 Ala Pro Pro Gly Gly Thr Glu Arg Arg Pro Asn Gly Leu Gly Pro Glu
191          245          250          255
194 Arg Ser Ala Gly Pro Gly Gly Ala Glu Ala Glu Pro Leu Pro Thr Gln
195          260          265          270
198 Leu Asn Gly Ala Pro Gly Glu Pro Ala Pro Ala Gly Pro Arg Asp Thr
199          275          280          285
202 Asp Ala Leu Asp Leu Glu Glu Ser Ser Ser Ser Asp His Ala Glu Arg
203          290          295          300
206 Pro Pro Gly Pro Arg Arg Pro Glu Arg Gly Pro Arg Gly Lys Gly Lys
207 305          310          315          320
210 Ala Arg Ala Ser Gln Val Lys Pro Gly Asp Ser Leu Pro Arg Arg Gly
211          325          330          335
214 Pro Gly Ala Thr Gly Ile Gly Thr Pro Ala Ala Gly Pro Gly Glu Glu
215          340          345          350
218 Arg Val Gly Ala Ala Lys Ala Ser Arg Trp Arg Gly Arg Gln Asn Arg
219          355          360          365
222 Glu Lys Arg Phe Thr Phe Val Leu Ala Val Val Ile Gly Val Phe Val
223          370          375          380
226 Val Cys Trp Phe Pro Phe Phe Phe Thr Tyr Thr Leu Thr Ala Val Gly
227 385          390          395          400
230 Cys Ser Val Pro Arg Thr Leu Phe Lys Phe Phe Phe Trp Phe Gly Tyr
231          405          410          415
234 Cys Asn Ser Ser Leu Asn Pro Val Ile Tyr Thr Ile Phe Asn His Asp
235          420          425          430
238 Phe Arg Arg Ala Phe Lys Lys Ile Leu Cys Arg Gly Asp Arg Lys Arg
239          435          440          445
242 Ile Val
243          450
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247 <211> LENGTH: 450
248 <212> TYPE: PRT
249 <213> ORGANISM: Homo sapiens
251 <400> SEQUENCE: 4
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254 1          5          10          15
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258          20          25          30
261 Thr Leu Thr Leu Val Cys Leu Ala Gly Leu Leu Met Leu Leu Thr Val
262          35          40          45
265 Phe Gly Asn Val Leu Val Ile Ile Ala Val Phe Thr Ser Arg Ala Leu
266          50          55          60
269 Lys Ala Pro Gln Asn Leu Phe Leu Val Ser Leu Ala Ser Ala Asp Ile

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270	65					70					75				80	
273	Leu	Val	Ala	Thr	Leu	Val	Ile	Pro	Phe	Ser	Leu	Ala	Asn	Glu	Val	Met
274						85				90					95	
277	Gly	Tyr	Trp	Tyr	Phe	Gly	Lys	Ala	Trp	Cys	Glu	Ile	Tyr	Leu	Ala	Leu
278					100				105					110		
281	Asp	Val	Leu	Phe	Cys	Thr	Ser	Ser	Ile	Val	His	Leu	Cys	Ala	Ile	Ser
282				115				120					125			
285	Leu	Asp	Arg	Tyr	Trp	Ser	Ile	Thr	Gln	Ala	Ile	Glu	Tyr	Asn	Leu	Lys
286		130					135					140				
289	Arg	Thr	Pro	Arg	Arg	Ile	Lys	Ala	Ile	Ile	Ile	Thr	Val	Trp	Val	Ile
290	145					150					155				160	
293	Ser	Ala	Val	Ile	Ser	Phe	Pro	Pro	Leu	Ile	Ser	Ile	Glu	Lys	Lys	Gly
294					165					170				175		
297	Gly	Gly	Gly	Gly	Pro	Gln	Pro	Ala	Glu	Pro	Arg	Cys	Glu	Ile	Asn	Asp
298				180					185					190		
301	Gln	Lys	Trp	Tyr	Val	Ile	Ser	Ser	Cys	Ile	Gly	Ser	Phe	Phe	Ala	Pro
302			195					200					205			
305	Cys	Leu	Ile	Met	Ile	Leu	Val	Tyr	Val	Arg	Ile	Tyr	Gln	Ile	Ala	Lys
306		210					215					220				
309	Arg	Arg	Thr	Arg	Val	Pro	Pro	Ser	Arg	Arg	Gly	Pro	Asp	Ala	Val	Ala
310	225					230					235				240	
313	Ala	Pro	Pro	Gly	Gly	Thr	Glu	Arg	Arg	Pro	Lys	Gly	Leu	Gly	Pro	Glu
314				245						250				255		
317	Arg	Ser	Ala	Gly	Pro	Gly	Gly	Ala	Glu	Ala	Glu	Pro	Leu	Pro	Thr	Gln
318				260					265					270		
321	Leu	Asn	Gly	Ala	Pro	Gly	Glu	Pro	Ala	Pro	Ala	Gly	Pro	Arg	Asp	Thr
322			275					280					285			
325	Asp	Ala	Leu	Asp	Leu	Glu	Glu	Ser	Ser	Ser	Ser	Asp	His	Ala	Glu	Arg
326		290					295					300				
329	Pro	Pro	Gly	Pro	Arg	Arg	Pro	Glu	Arg	Gly	Pro	Arg	Gly	Lys	Gly	Lys
330	305					310					315				320	
333	Ala	Arg	Ala	Ser	Gln	Val	Lys	Pro	Gly	Asp	Ser	Leu	Pro	Arg	Arg	Gly
334				325						330				335		
337	Pro	Gly	Ala	Thr	Gly	Ile	Gly	Thr	Pro	Ala	Ala	Gly	Pro	Gly	Glu	Glu
338				340					345					350		
341	Arg	Val	Gly	Ala	Ala	Lys	Ala	Ser	Arg	Trp	Arg	Gly	Arg	Gln	Asn	Arg
342			355					360					365			
345	Glu	Lys	Arg	Phe	Thr	Phe	Val	Leu	Ala	Val	Val	Ile	Gly	Val	Phe	Val
346		370					375					380				
349	Val	Cys	Trp	Phe	Pro	Phe	Phe	Phe	Thr	Tyr	Thr	Leu	Thr	Ala	Val	Gly
350	385					390					395				400	
353	Cys	Ser	Val	Pro	Arg	Thr	Leu	Phe	Lys	Phe	Phe	Phe	Trp	Phe	Gly	Tyr
354				405						410				415		
357	Cys	Asn	Ser	Ser	Leu	Asn	Pro	Val	Ile	Tyr	Thr	Ile	Phe	Asn	His	Asp
358				420					425				430			
361	Phe	Arg	Arg	Ala	Phe	Lys	Lys	Ile	Leu	Cys	Arg	Gly	Asp	Arg	Lys	Arg
362			435					440					445			
365	Ile	Val														
366		450														

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371 <212> TYPE: DNA
372 <213> ORGANISM: Homo sapiens
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379 <211> LENGTH: 23
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381 <213> ORGANISM: Homo sapiens
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388 <211> LENGTH: 20
389 <212> TYPE: DNA
390 <213> ORGANISM: Homo sapiens
392 <400> SEQUENCE: 7
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396 <210> SEQ ID NO: 8
397 <211> LENGTH: 23
398 <212> TYPE: DNA
399 <213> ORGANISM: Homo sapiens
401 <400> SEQUENCE: 8
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406 <211> LENGTH: 24
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415 <211> LENGTH: 23
416 <212> TYPE: DNA
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424 <211> LENGTH: 22
425 <212> TYPE: DNA
426 <213> ORGANISM: Homo sapiens
428 <400> SEQUENCE: 11
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433 <211> LENGTH: 23
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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/636,259C

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Input Set : A:\10738-44.ST25.txt  
Output Set: N:\CRF4\03072003\I636259C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:19; N Pos. 7

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/636,259C

DATE: 03/07/2003

TIME: 08:08:39

Input Set : A:\10738-44.ST25.txt

Output Set: N:\CRF4\03072003\I636259C.raw

L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0